SINCUS NEWS will cease publishing

after the July/August 1990 issue. SINCUS will send all articles to S.N.U.G.'s newsletter, "Roundup". Due to a decline in subscriptions, and a reduction in input, I proposed a termination of the newsletter as it is, and replace it with a monthly meeting notice. Dues are going to be suspended, and all will be urged to subscribe to S.N.U.G. Corresponding members, please note the mailing label line above your name. "Last issue", means this is the last issue due you. If the label has a spelled out number, "zero, one, two, etc", that will be the number of issues remaining on your current subscription, after the July issue. You will get with your last issue in July a check for the amount of "that number times $1.33". No money will be refunded for the extended issue offers. Swaps will cease with the July issue. All future business with SINCUS will be advertised and promoted thru the SNUG newsletter. Please subscribe to SNUG. Thanks to all members for your past support. Write to S.N.U.G. at Paul Holmgren, 5231 Wilton Wood Ct., Indianapolis, IN 46254   Send a SASE for replies.

SINCUS GOES MSDOS:

Local news: SINCUS March meet: A resolution was passed which will open SINCUS up to MSDOS machines. Upcoming meets will have demos on MSDOS. TS computers will also be supported as before.   Election time: May Meet. Nominations: John Colonna - President, V.P.- Clyde Tackley, Treasurer- George Fenney, Secretary - Paul Hill, Trustees- Don Lamen, Dave Schoenwetter. One slate, no opposition-...do we haffta wait?

In the mailing of our March/April Swaps I included a request for a current address of a former member to whom we owed a VERY Big Thanks. Within a week I had two phone calls, the first from the Las Vegas Group, and the second from the San Francisco group. Then the following groups responded by mail, Vancouver, New York, and SMUG and a few others as well. Here's a Very big THANK YOU to the wonderful folks in the TS world who made it possible to contact our former member.

Hello to these nice folks, Charles "Ray" Byler , Box 5061, APO SF 96519; W.C. McGrath, San Ysidro, CA; and to NEW member, Joe Lewis, Jackson MS. Sorry we decided to roll up the rug, but you will get your money back with the July issue.

News from: The Boston TS User SIG of the Boston Computer Society, is closing up and reforming as the New England Sinclair QL User Group. Contact person is Richard Taylor, 309 Holly Cir., Tiverton, RI 02878. Joyce Blaho, 917 Fellsway, Medford, MA 02155 is still the N/L swap person. And from those folks we learn that "UPDATES" will be taken over by Frank Davis in October 1990. Rates reported to be $18/yr, 4 issues a year. SWYM, Seattle Area TSUG, Robert Cazares, 118 N.W. 84th Street, Seattle, WA 98117 -3044; passes on a review of the Panasonic KX-P1124 printer and Don Lambert's review of MSCRIPT E.5 from Jack Dohany; and a review of SNUG's first newsletter. LAST issue of FDD Express, 4307 Chambers Rd., Horseheads, NY 14845; Ron is getting totally involved with other computers and is selling his whole setup and odds and ends for $400. He passes on a note from Nazir Pashtoon about

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I wish to thank all subscribers and readers+
for supporting this newsletter, and a very +
BIG THANKS to all the contributing writers.+
===

-- Meeting DATES -- 1990 --
------ 7pm Vestal Library -----
    MAY 15 3rd Wednesday
    JUN 20   "   "
    JUL 18   "   "
    AUG 15   "   "
    SEP 15   "   "
    OCT 17   "   "
    NOV 14 2nd Wednesday
==

TIMEX Logic
Part I
Warren Fricke, 8-9-88

This series of articles is called Timex Logic rather than computer logic because not all computers treat and/or use logic as fully as the Timex computer can. Some of the logic operations described in this series cannot be used on many other computers, including one fruity one, widely pushed onto our public school systems. This is not intended to imply that other computers cannot perform similar tasks. They can do the same thing by devious means but need more programming lines and consume more time in so doing. Appropriate logic can cut a lot of corners.

Line 10, that follows, is a statement containing a single logic condition. The construction of the line is typical of most, but not all, logic statements..... IF "some logic condition" THEN.....

10 IF X>5 THEN PRINT "OK"

    X>5 is read X"greater than"
        5, is a logic condition
        or relation.
    X...is a variable that may
        have any numerical
        value.
    > ..means "greater than" &
        is one of six symbol
        operators, =, <, >,
        <=, >=, and <>. Refer
        to page 228 of the
        manual for their mean-
        ings.

Line 10 means that if X is greater in value than 5, print the word "OK". Whatever follows THEN is the action to be taken, which can be almost anything. Simple as this statement seems to be, the computer must evaluate the logic condition of X>5 before it can act properly. It does this by making a comparison between X and 5, and then substituting a "logic value of 1" for the condition if the condition is TRUE, or a "logic value of 0" for the condition if it is FALSE. It follows that the condition will be TRUE or FALSE depending upon the value of the variable X at the time the computer works on this line, and the comparison is made.

Although the computer itself assigns a logic value of 1 to a TRUE condition, it considers any number other than 0 to be logical TRUE, even negative numbers. Thus a logic value of 0 denotes a FALSE condition and any other logical value denotes a TRUE condition. Hence, logic is number oriented. We can test this by adding a program line..

5 LET X=6

If we now RUN this two-line program, line 10 will print out the word "OK". This is because the logic condition of X>5 is TRUE, and the computer substituted a logic value of 1 for the condition. By direct entry have the computer PRINT X>5 and the response will be 1, the logic value of a TRUE condition.

If we change the value of X in line 5 to say 3 and RUN the program again, nothing prints out. This is because the computer assigned a logic value of 0 to the X>5 condition, as it is now FALSE. As before, and by direct entry, ask the computer to PRINT X>5. The response will be 0, the current logical value of X>5.

Now DELETE line 5. And in line 10 in place of the condition X>5, substitute 1, the logic value for a TRUE condition. RUN the one-line program and the word "OK" will print. It will also print "OK" no matter what numerical value is substituted for X>5, even negative values. Try some. But if a 0 is substituted for X>5, indicating a FALSE condition, nothing prints out.

It is important to realize that the conditions referred to as TRUE or FALSE do not involve morals nor are they indicative of desireability in any way. They are merely terms handed down from a branch of mathematics that was in existance long before the Timex computer. You can verify this by running thru the preceding exercises with the condition changed to read X<5, or X=5. etc.

NOT is unique as a logic operator. It is the only one of them that is also a function; so it always has a following argument (condition) and a subsequent result, which in this case is always 0 or 1. Unlike other functions its priorty is a low 4, ranking it below the six symbol operators and just above AND and OR. →p5

-2-

MICRO-CODING SIMPLIFIED
George Penney, SINCUS

IF YOU DON'T LIKE STARING AT
A BLANK SCREEN WAITING ON THE
BASIC INTERPRETER BUT HAVE NOT
TRIED MACHINE LANGUAGE BECAUSE
OF THAT LONG LIST OF POSSIBLE
OPERATION CODES OR BECAUSE YOU
HATE HEXADECIMAL NOTATION, THEN
THIS ARTICLE IS FOR YOU.

BASIC IS THE MOST WIDELY USED
COMPUTER LANGUAGE FOR VERY GOOD
REASONS. IT IS EASY AND QUICK.
HOWEVER, ITS EXECUTION CAN BE
SLOW. THE EASIEST FIX FOR THIS
IS TO INCORPORATE MACHINE CODE
WITHIN A BASIC PROGRAM AS REM
STATEMENTS. THAT IS WHAT I
DESCRIBE HERE.

FIRST BEAR IN MIND THAT HEXA-
DECIMAL IS ONLY ONE OF SEVERAL
CODING NOTATIONS. BECAUSE THE
SINCLAIR SYSTEM USES DECIMAL FOR
THE PEEK AND POKE FUNCTIONS, I
PREFER TO USE DECIMAL.

SECOND, THE Z80 LITERATURE
IDENTIFIES ALL DATA TRANSFERS AS
LD (LOAD) THEREBY CONFUSING THE
SELECTION OF INSTRUCTION CODES.
BETTER OPERATION NAMES CAN BE
USED, NAMELY:

   MV (MOVE) MEMORY TO MEMORY
   ST (STORE) REGISTER TO MEM
   TR (TRANSFER) REG TO REG
   LD (LOAD) MEMORY TO REG

A THIRD SIMPLIFICATION IS TO
SELECT ONLY THE MORE USEFUL OF
THE MANY POSSIBLE OPERATIONS,
AT LEAST UNTIL YOU BECOME MORE
PROFICIENT.

LASTLY, WE CAN IDENTIFY THE
REGISTER PAIRS WITH THEIR MORE
COMMON FUNCTIONS:

   HL LOCUS
   DE DESTINATION
   BC BYTE COUNT
   A ACCUMULATOR

SELECTED OPERATIONS

THE FOLLOWING LISTS CONTAIN
THE OPERATIONS THAT I HAVE FOUND
MORE USEFUL. THE MOST POWERFUL
INSTRUCTIONS FOR THE Z80 ARE THE
MOVE WITH REPEAT AND THE COMPARE
WITH REPEAT. THESE CAN REPLACE
FOR-NEXT LOOPS THUS SAVING MUCH
TIME. THERE IS LITTLE ADVANTAGE
IN CODING ARITHMETIC OPERATIONS
AS NO REAL IMPROVEMANT CAN BE
GAINED OVER THE SINCLAIR ROM.

MACHINE CODES BY FUNCTION

Mnemonic	Code		Symbol
ADD	134		\
AUGM HL	9		
BR	233		DIM
CALL		205**	LN **
CPA	237	177	GOSUB
CPD	237	185	GOSUB
DECR A	61		X
DECR BC	11		
DECR DE	27		.
DECR HL	43		F
DIM HL	237	66	GOSUB PI
DJNZ	16*		(*
EXCISE	26		,
INCR A	60		
INCR BC	3		
INCR DE	19		<
INCR HL	35		7
INSRT A	18		>
JP	24*		/*
JPNZ	32*		4*
JPZ	40*		C*
LD A	58**		U**
LOC	42**		E**
LDVA	62*		Y*
LDVBC	1**		**
LDVDE	17**		)**
LDVHL	33**		5**
MARK	54*		0*
MVA	237	176	GOSUB
MVD	237	164	GOSUB
NEG	47		J
RT	201		TAN
RTNZ	192		"."
RTZ	200		COS
ST A	50**		M**
ST HL	34**		6**
SWAP	235		FOR
TR BC	197		VAL
TR DE	213		STR$
TR HL	229		FAST
TO BC	193		AT
TO DE	209		SGN
TO HL	225		LPRINT

THE FIRST COLUMN IS MY OWN
MNEMONIC. STANDARD MNEMONICS ARE
LISTED IN THE BACK OF THE TS1000
MANUAL. ASTERISKS INDICATE THE
NECESSARY INSERTION OF A VALUE
OR ADDRESS.

CODING Con't.

MACHINE CODES BY NUMBER

Number	Symbol	Description
1	■	LD VALUE INTO BC
3	■	INCR BC
9	₩	AUGMENT HL
11	"	DECR BC
16	(	DJNZ (DECR B AND)
18	)	INSERT A AT DEST
19	<	INCR DE
24	/	JUMP (RELATIVE)
26	,	EXCISE (DE) TO A
27	.	DECR DE
32	4	JPNZ (RELATIVE)
33	5	LDVHL
34	6	ST HL
35	7	INCR HL
40	C	JPZ (RELATIVE)
42	E	LOCATE (LD HL)
43	F	DECR HL
47	J	NEGATE A
50	M	ST A
54	Q	MARK (DATA TO LOC
58	U	LD A (FROM ADDR)
60	W	INCR A
61	X	DECR A
62	Y	LDVA
66*	PI	DIMINISH HL
134	■	ADD DATA AT LOCUS
176*	■	MOVE ASCENDING
177*	■	COMPARE ASCENDING
184*	■	MOVE DESCENDING
185		COMPARE DESCENDNG
192	""	RTNZ
193	AT	TO BC (POP)
197	VAL	TR DE (PUSH)
200	COS	RTZ
201	TAN	RETURN
205	LN	CALL
209	SGN	TO DE
213	STR$	TR DE
225	LPRINT	TO HL
229	FAST	TR HL
233	DIM	BRANCH (TO LOCUS)
235	FOR	SWAP DE/HL

* PRECEDED BY 237 (GOSUB)

SPECIAL DEFINITIONS

ASCENDING:	SUCESSIVE (DATA)
DESCENDING:	IN REVERSE SEQUENCE
DESTINATION:	ADDRESS IN DE
LOCUS:	ADDRESS IN HL
NEGATE:	CHANGE ACCUMULATOR CONTENTS TO NEGA-TIVE VALUE IN LIEU OF DIRECT SUBTRACTION

SELECTED ROM CALLS (205)

Call	Addr			
CLS	(2602)	42	10	E▩
COPY	(2153)	105	8	?▩
DELETE (LOCUS HL, BYTES IN BC)	(2656)	98	10	?▩
DELETE (ADDR IN DE TO LOCUS)	(2653)	93	10	?▩
DISPLAY STRING (ADDR DE, LEN, BC	(2923)	107	11	?"
FAST	(3875)	35	15	7?
FIND LINE (LINE IN HL GIVES ADDR	(2520)	216	9	**▩
MAKE ROOM (TO LOCUS, BYTES BC)	(2174)	126	8	7▩
PAUSE (TIME IN BC)	(3840)	0	15	?
POSITION DISPLAY (COL,ROW IN BC)	(2293)	245	8	PRINT ▩
SCAN KEYBD (GIVES CODE IN HL)	(699)	187	2	▩■
SLOW	(3833)	67	11	?"
SCROLL	(3086)	14	12	£

SYSTEM VARIABLES

Name	Addr			
CURSOR	16394	10	64	▩RND
D-FILE	16396	12	64	£RND
NXTLIN	16425	41	64	DRND
RAMTOP	16388	4	64	■RND
STKBOT	16410	26	64	,RND
STKEND	16412	28	64	∅RND
VARS	16400	16	64	(RND
AA	16514	130	64	▩RND
BC	16516	132	64	▩RND
DE	16518	134	64	▩RND
GG	16520	136	64	▩RND
HL	16522	138	64	▩RND

CODING Con't.   = =

USING MICRO-CODE

I LIKE TO USE THE FOLLOWING BASIC CODE AS A CORE FOR ANY NEW PROGRAM. LINE 1 GIVES ME A PLACE TO PASS DATA BETWEEN BASIC AND MACHINE PROGAM. IT ALSO CONTAINS A SHORT ROUTINE THAT ALLOWS ME TO INSERT MACHINE CODE ANYWHERE IN THE BASIC PROGRAM. LINE 800 BEGINS A ROUTINE THAT DISPLAYS CODE AT THE CURSOR LINE.

I USUALLY WRITE A ROUTINE ON PAPER USING THE MNEMONICS FROM MY LIST AND USE THE NORMAL EDIT FUNCTION TO PUT THE CORRESPONDING CHARACTERS INTO THE REM STATEMENT.

'WHERE I ENCOUNTER UNPRINTABLE CHARACTERS (IN ROM ADDRESSES) I SUBSTITUTE A POUND SIGN AND THEN POKE THE CORRECT DECIMAL VALUE.

```
   1 REM AABCDEGGHLLN 77*█ EDRND
▒ DIM
  10 RAND USR NX
  11 REM TAN £££££££££££££££££££
  12 RETURN
 800 RAND USR NX
 801 REM E▒RNDLN #÷▒*█ ▒S▒RNDTAN

 802 LET M=PEEK HL+256*PEEK (HL+
1)
 810 CLS
 811 FOR N=M TO M+21
 812 PRINT N;"    ";PEEK N,CHR$ P
EEK N
 813 NEXT N
 820 STOP
 821 LET M=M+21
 823 GOTO 810
 900 PRINT "PLEASE START TAPE (R
ECORD)       THEN PRESS C"
 901 PAUSE 4E4
 902 CLS
 903 SAVE "T▓"
 910 LET I=-COS PI
 911 LET NX=16524
 912 LET HL=16522
 990 PRINT "NEW PROGRAM FRAME"
```

16514	38	A
16515	38	A
16516	39	B
16517	40	C
16518	41	D
16519	42	E
16520	44	G
16521	44	G
16522	130	█
16523	64	RND
16524	205	LN
16525	35	7
16526	15	?
16527	1	▪
16528	5	▌
16529	0	
16530	42	E
16531	41	D
16532	64	RND
16533	9	▒
16534	233	DIM
16535	118	?

Logic Con't.

NOT is used principally to inverse the logic value of another logic operation. In expressions like NOT X=Y, if X=Y is TRUE (logic value 1), NOT X=Y is FALSE (logic value 0). If X=Y is FALSE, then NOT X=Y is TRUE. In this combination, the Timex computer evaluates the operation X=Y first, as the logic symbol = has a priorty higher than NOT. Parentheses (high priorty) around the operation X=Y are not needed to do this, but may be used sometimes for clarity. The Timex computer simply ignores superfluous parentheses.

NOT can be eliminated, if desired, by inversing the expression that it modifies. For example, NOT X=Y can be replaced by X<>Y. But use care in so doing. The inverse of X>Y is X<=Y, and not simply X<Y.

There are times when NOT can not conveniently be eliminated. For example, NOT X means that if X has a value of 0, NOT X has a logic value of 1. If X has a value other than 0, NOT X has a logic value of 0. From this one can appreciate that NOT "something" will always have a logic value of 0 or 1, and nothing else.

In Part II we will show how compound logic statements can be built up using the combining logic operators, AND and OR. And, how the Timex computer considers the priorty of all operations, including those assigned to logic conditions, so that it can do "first things first"; thus arriving at the proper action to take in any situation.

Warren Fricke
8-9-88

The Great TS Garage/Porch/Lawn SALE!
The LAST 30 DAYS - it's over May 30, 1990

1. All items sold as is, all sales final, no returns. All sales are on a first come first serve basis. You may wish to add a 2d or 3d preference, any over payment will be returned. All software is orginial with docs.

2. Money orders preferred; make payable to "Paul Hill". Orders mailed next day when possible. Checks will require up to 4 weeks to clear. Please insure your name and address is printed CLEARLY! This sale is being handled by the undersigned, not the club SINCUS. All proceeds, less expenses, will be turned over to SINCUS.

Paul Hill, 1229 Rhodes Rd., Johnson City, NY 13790 (607)-798-7219 after 4pm.

Item #	Description	Sale Price
1	ZX80 w/manual, 22 cassettes, docs, cables, ps (it works!) 1st computer under $200	$70.00
2	ZX Printer with aluminized paper (hard to find)can be modified for thermal paper	$50.00
3	TS1000, w/raised keys, ps, manual, 16K RAM (real nice!)in a TS case too!	$20.00
4	Alphacom printer/13 paper rolls(even the pennies are included!)	$20.00
5	8K ROM upgrade with docs included (never used) by Tom Woods	$20.00
6	ZX81-TS1000-TS1500 programs	$2 each or (1st $20 takes all)

Chess   Cube Game   Crazy Mazey   Basic BASIC   Backgammon Games Sampler   Mind Bogglers
Gridlock   Money Analyzer   The Computer Coach Graphics Kit   Guitar for Beginners
"ZX81 Programs for Real Applications"(Hurley) tape and book.(nice set) ...$6.00

7 Zebra's FDD3000 Dual Disc System w/CP/M option, manual, I/F, Mscript mod for FDD; 15 discs, CP/M and TOS on disc. FDD Express Newsletters...$265.00
8 Modem, TS2050 in case, with 1000/2068 telecom programs...$80.00

9 32K NVM memory board (w/manual)...$70.00
                         these plug into the cartridge slot...or both boards for $120.00
10 32K NVM memory board (w/manual)...$70.00
11 OS-64 cartridge, plus Utilities and Personnel Secretary S/W...$45.00

12	Pro ToolKit cartridge...$45.00	13	Spectrum Rom switch...$30.00
14	Spectrum emulator cartridge...$24.00	15	Profile cartridge, docs...$30.00
16	Eprom player...$22.00	17	I/O port board...$30.00
18	ZAD broard...$25.00	19	Pseudoscope...$5.00
20	Load Monitor program...$5.00	21	Byte Back Clock/RS232...$18.00
22	Data Program...$6.00	23	Tasman driver(Woods)...$3.00
24	Zebra Speach Synthesizer...$15.00	25	Z talker...$15.00
26	HS-Driver...$15.00	27	Speach Synth Prog...$5.00

28 Spectrum software - ...$4 per each (1st $20 takes all)
MC Tutor(2 cassettes)   Spec Monitor, Assembler   DLAN(Display lang.)   Paint Plus
Soundesign   Spec Editor   Tasword 2   Easy Speak   Beta Basic
29 2068 SOFTWARE(one of each) orginials with docs. ...$3.00 each (1st $30 takes all)
Kruncher   Tracer   BasicTool Kit   UpLoad 2000   ZXpert   Tasword 2
Mscript(21st Cent)   Zprint80   Smartext   Sprites 2068   Cross Assembler
Mailing List   FORMail   Vieword/Maillist
30 2068 SOFTWARE ALL ORGINIALS WITH DOCS, $4.00 EACH (1st $35.00 takes all)
Timachine   Super Hot Z   Hot Z   Hot Z Names   Zeuss Assembler   Zip Compiler
Compass   Profile+5   Profile3   Profile +   Tomahawk   Artworx1.1
31 $2 per item Section
Tasword/Mscript QuickKey overlays   Basic BASIC for the TS1500/1000   Explorer's Guide to the TS1500/1000

CONT'D from page 1

a 3.5" drive he got from Digital One (Jan. issue ad on page 606 of Computer
Shopper);price was $33. They were NEC 1035, 1036 and 1037 drives. The 1037 is 1/4
height, 720K drives which format to 620K in the FDD system. Reliable, cheap and
620K capacity! The Hacker, Las Vegas TSUG mentions the Z88 FAX News, Curtis Claar,
2342 Glendale Ave., Casper, WY 82601; a faxed newsletter for the Z88, costs $8 a
year for 12 issues. Under their BBS column are several BBSs reviewed for your info,
from NYC to California. And via Sinc-Link is a 2068 - Star ZX-1000/Aerco Centronics
interface fix. From Richard Hurd, invert the strobe line from the Aerco Centronic
IF to the Star printer. John Oliger gave Richard the tip. The Plotter, Clackamus
County Area TSUG, 1419 1/2 7th Street, Oregon City, OR 97045 has a program for
LKDOS so you don't have to type the each file name into a LOAD menu program. An
Article on a 2068 serial cable, and a review of Pix-Fx. TS Bulletin, Bill Harmer,
97 Ruskin Ave., Ottawa Ontario K1Y 4B3 has much info as usual, Time Designs, Vol 5,
No 2, is out,(29722 Hult Road, Colton, OR 97017;(No responce to a letter mailed in
early March to this editor-PAH) Wm McKelvey, 744 Wall Rd., Spring Lake Heights,NJ
07762 is building heavy duty power supplies for the 2068. Bill goes into a squeeze,
and discusses how the compressions of files comes about, and maybe someone would
want to do that fer TS users!

- Shooting some breezes: On the front of this newsletter, a small anouncement may
go unnoticed, SINCUS is going with MSDOS. Over a period of time more of our
declining enrollment has been switching over to MSDOS machines. The price is low
for a 8088, .5 meg RAM, and a 20meg Harddisc. With disc drives, a printer and a
monitor on hand, less than $600 is getting these folks in business. Reasons are
many, and work related production is rarely on a QL or a 2068. The effect, as in
most other TS groups, members are not renewing, costs are soaring, and dues are
going up or newsletter's size is being cut. A newsletter is the glue for it's
group, and a piece of the budget pie for all other publications. National pubs have
to compete against each newsletter. With the declining subscriptions of newsletters
and magazines, so declines writer's input, the very reason for existance. Why buy
a magazine or newsletter if it never has anything related to what you want to
learn? And if the cost goes up, the content goes down, whose to subscribe? What
if...all the newsletters send their articles to S.N.U.G. for publication.
Currently, each group publishes monthly, or bi-monthly or quarterly or once in
awhile. What if...all newsletters just sent out meeting and dues notices? What if
... all groups charged its members just enough to cover minimal expenses? What
if... S.N.U.G. charged $18 a year for its publications? What if ... all TS users
subscribed to SNUG? Could we keep the TS ball rolling for a few more years?
Articles, reviews, how to's, opinions, and news could be seperated into machine
groups. Each article would get national exposure, groups or individuals could get
some income from making tape or disc copies of software. Group swap expenses would
be reduced to nil. Editors would still have to get the material and group related
news ready for the national publication and send it in on time. Since writing this,
S.N.U.G.'s Paul Holmgren came out with a similiar recommendation, that we all pull
together and support a national newsletter. I feel it is a good time to get on the
band wagon. We have missed meeting some groups, and I hope we meet more through
SNUG, and more individual users. Paul Hill, Sincus News

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+ publication, no dues will be accepted.
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+ much to be refunded

HAM-BONE BBS-(607)754-7498 Seems to be down again, maybe next month

Thanks to George Penney and Warren Fricke for their help with the input to this edition. And a very heart felt thanks to all who have helped out since 1982.

SINCUS DISC/tape SWAPS for the TS2068 are still growing- five discs available and the sixth under construction. Available in Oliger or Larken Formats ONLY in 40 track, 5.25" discs. Get all five for $10.00, or $2.50 per disc for orders less than 5 discs. Special deal- one swap disc for $1.00 and three Public Domain programs (YOURS or outa a magazine and give credit where due- send for list of our programs, dupilcates don't count).
Send for disc catalogs, enclose an SASE. Send for a Sample disc and catalog enclose $2.00.
For Oliger (DDDS 5.25" only) swaps write John Colonna, 28 Guilfoyle Ave., Binghamton, NY 13903.
For LKDOS (DDDS 5.25" only) swaps write to Paul Hill, 1229 Rhodes Rd., Johnson City, NY 13790. Make checks payable to SINCUS.
"CLONE"- a TS2068 tape copier (2 modes) and a header reader. On other side of tape are a couple swap samples. (TAPE ONLY) $5. PPD.
COMPUTUS INTERRUPTUS- a multipart article on the 2068, includes programs, projects and artwork. Printed out, over 60 pages. Available on LKDOS and Oliger discs - 5.25 DSDD only $5. Make checks to SINCUS, write to Paul Hill, 1229 Rhodes Rd., Johnson City, NY 13790.

I do not wish to dictate the membership cost of SNUGs letter, on page seven, just shooting out a suggestion. The decision to stop SINCUS NEWS was not an easy one to make. Money, time and energy of several people goes into each issue, pride and ego is also a part of the letter. To stop, like to quit hitting one's head on the wall feels good, but also the ego, pride suffers. But more than one's silly ego, is the personal contact with so many of you TS users out there, that's what I'll miss the most. I'm thankful for the opportunity to have met some personally, and most by phone and letter. PAH